

# Comparisons of Job Characteristics

**Focus Occupation:** [Engineers, All Other \(17-2199\)](#)

**Associated Occupation:** [Mechanical Engineering Technicians \(17-3027\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 93

**Focus Occupation:** Engineers, All Other (17-2199)

**Associated Occupation:** Mechanical Engineering Technicians (17-3027)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mechanical	6.8	18.0	14.0	<< Extensive education and/or training may be required
Engineering and Technology	5.7	16.1	20.1	>> Current knowledge level is likely more than sufficient
Design	5.2	15.1	16.5	0 Current knowledge level may be sufficient
Production and Processing	6.0	12.6	12.9	0 Current knowledge level may be sufficient
Physics	4.3	10.2	14.8	>> Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 77

**Focus Occupation:** Engineers, All Other (17-2199)

**Associated Occupation:** Mechanical Engineering Technicians (17-3027)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Operation Monitoring	6.6	10.7	10.1	0 Current skill level may be sufficient
Quality Control Analysis	5.9	10.2	9.7	0 Current skill level may be sufficient
Operation and Control	5.4	9.0	6.9	< A higher skill level may be required
Troubleshooting	4.5	7.3	7.8	0 Current skill level may be sufficient
Equipment Maintenance	3.5	6.8	4.6	<< Extensive development of skills in this area may be required
Repairing	3.4	6.6	4.7	<< Extensive development of skills in this area may be required
Equipment Selection	3.3	6.2	6.3	0 Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 91			
Focus Occupation: Engineers, All Other (17-2199) Associated Occupation: Mechanical Engineering Technicians (17-3027)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Category Flexibility	9.0	10.7	12.3	>	Current ability level is likely sufficient
Control Precision	6.6	10.2	6.7	<<	Extensive improvement in abilities may be required
Visualization	7.5	10.2	11.7	>	Current ability level is likely sufficient
Number Facility	6.3	9.7	11.6	>	Current ability level is likely sufficient
Perceptual Speed	7.4	9.6	9.2	0	Current ability level may be sufficient
Visual Color Discrimination	6.4	9.2	8.6	0	Current ability level may be sufficient
Wrist-Finger Speed	3.2	5.5	3.0	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 85
Focus Occupation: Engineers, All Other (17-2199) Associated Occupation: Mechanical Engineering Technicians (17-3027)		
Tools and Technologies	Exclusivity	
Business function specific software	1	
Chemical evaluation instruments and supplies	10	
Computer data input devices	2	
Computer printers	2	
Computers	1	
Content authoring and editing software	1	
Cutting and crimping and punching tools	3	
Development software	4	
Electrical measuring and testing equipment	7	
Electronic and communication measuring and testing instruments	14	
Gas analyzers and monitors	10	
Indicating and recording instruments	2	
Industry specific software	1	
Information exchange software	1	
Integrated circuits	18	

Laboratory environmental conditioning equipment	24
Length and thickness and distance measuring instruments	2
Light and wave generating and measuring equipment	4
Liquid and gas flow measuring and observing instruments	15
Machine tools	7
Machinery for working wood and stone and ceramic and the like	12
Mechanical instruments	14
Metals and metallurgy and structural materials testing instruments	15
Meteorological instruments	16
Network applications software	1
Non destructive examination equipment	13
Power conditioning equipment	33
Power tools	2
Rubber and plastic processing machinery and equipment and supplies	35
Soldering and brazing and welding machinery and supplies	6
Transducers	23
Viewing and observing instruments and accessories	4

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.